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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,050	10/05/2001	Mark L. Waechter	213828022US1	3857

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EXAMINER	
MCALLISTER, STEVEN B	
ART UNIT	**PAPER NUMBER**
3627	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/972,050	WAECHTER, MARK L.	
	Examiner	Art Unit	
	Steven B. McAllister	3627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *10-19 and 21-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/2005 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites providing at least one control signal "to control a quiescent voltage level of the coin signals ... by controlling amplitudes and frequencies of the coin signals". As understood by the examiner, the invention does not broadly control the amplitude and frequencies of the coin signals, but controls the amplitude and frequency of the oscillators, and via that control each quiescent voltage level. The amplitudes and frequencies of the coin signals generally depend on the absence or presence, and type of object adjacent the inductors.

Claim 1 is unclear because it is not clear whether "coin signals" is intended to mean the signal picked up by the sensors when a coin is present, or the signal generated by the signal generator (as is recited in line 4). As understood by the examiner, the signal generated by the generator is modified by the passage of the coin and is different from the signal picked up by the sensors.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Barson (5,158,166).

Barson shows a signal generator comprising a VCO; at least one processor coupled to receive and monitor coin signals generated by the signal generator, wherein the processor receives and monitors the signals at each of two or more frequencies (e.g., col. 3, lines 54-63) signals representing size and composition of a coin; at least one amp coupled to the signal generator and the processor, wherein it automatically provides at least one control signal to control a quiescent voltage level of the VCO to control amplitude and frequency of the signals received by the processor over at least

one range of operating temperatures, and wherein the at least on control signal holds the frequencies substantially constant (e.g., col. 4, lines 20-30).

As to claim 3, Barson shows that the control signal controls a frequency and amplitude of the oscillator (e.g., col. 4, lines 20-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barson (5,158,166) in view of Hayes (5,687,830).

As to claim 9, Barson shows all elements except a high frequency signal of approximately 2MHz (Barson shows a signal "in the khz"). Hayes shows a high frequency signal of 2 MHz. It would have been obvious to one of ordinary skill in the art to modify the apparatus of Barson by providing the signal frequency of Hayes in order to characterize the coins.

As to claim 5, Barson in view of Hayes show all elements except the particular feedback mode. However, the examiner takes official notice that to adjust the output voltage as claimed is notoriously old and well known in the art. It would have been

obvious to one of ordinary skill to modify the apparatus of Barson by providing the claimed feedback mode in order to provide accurate output.

As to claim 7, Barson in view of Hayes show all elements except the particular monitoring interval. However, the examiner takes official notice that it is notoriously old and well known in the art to monitor at any convenient interval, including 200 milliseconds. It would have been obvious to one of ordinary skill in the art to do so in order to ensure that the system calibration is constantly updated.

As to claim 8, Barson in view of Hayes show all elements except the particular signal voltage. However, the examiner takes official notice that it is notoriously old and well known in the art to provide a signal at any convenient voltage, including 4.5 volts. It would have been obvious to one of ordinary skill in the art to do so in order to use a voltage that is easily compatible with integrated circuits.

Claim 20 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Neubarth et al (6,047,808).

Neubarth shows receiving at least one coin signature measurement signal representing at least a physical characteristic of a coin; automatically adjusting a quiescent state of the signal, by adjusting an amplitude and frequency of the signal to maintain the baseline value at a constant level over an operating temperature range (it is noted that no particular temperature range is claimed and that, as broadly claimed, the system of Neubarth maintains the amplitude and frequency at a substantially constant level over small temperature ranges); and wherein the coin signature

measurement signal is constructed from a variation of a control signal utilized to keep an oscillator frequency substantially constant as the coin passes by.

Alternatively, Neubarth shows all elements except automatically adjusting a quiescent state of the signal, by adjusting an amplitude and frequency of the signal to maintain the baseline value at a constant level over an operating temperature range. However, the examiner takes official notice that to do so is notoriously old and well known in the art. It would have been obvious to one of ordinary skill in the art to modify the method of Neubarth by automatically adjusting a quiescent state of the signal, by adjusting an amplitude and frequency of the signal to maintain the baseline value at a constant level over an operating temperature range in order to more accurately determine the characteristics of the coins.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. McAllister whose telephone number is (571) 272-6785. The examiner can normally be reached on M-Th 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander G. Kalinowski can be reached on (571) 272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven B. McAllister
Primary Examiner
Art Unit 3627

Steven B. McAllister

STEVE B. MCALLISTER
PRIMARY EXAMINER